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CERIOPS TAGAL (PERR.) C. B. ROBINSON AT KOSI BAY

T. D. Steinke and C. J. Ward

(*Department of Botany, University of Durban-Westville*)

Abstract

A survey at Kosi Bay revealed that saplings of *Ceriops tagal* (Perr.) C. B. Robinson were common in the estuary, although no living mature trees were found. While prospects for the continued existence of this community are good, there still remains a strong need for protection of this species which has been recorded from no other locality in the Republic of South Africa.

Uittreksel

CERIOPS TAGAL (PERR.) C. B. ROBINSON TE KOSIBAAI

'n Opname by Kosibaai het getoon dat jong boompies van *Ceriops tagal* (Perr.) C. B. Robinson algemeen in die estuarium voorkom hoewel geen lewende volgroeide bome gevind kon word nie. Terwyl die vooruitsigte vir die voortbestaan van hierdie gemeenskap goed is, is dit tog nodig dat hierdie spesies, waarvan die voorkoms nêrens elders in die Republiek van Suid-Afrika aangeteken is nie, beskerm moet word.

Introduction

Previous accounts of the mangroves at Kosi Bay indicated that *C. tagal* was rare (Tinley, 1958; Breen and Hill, 1969). This view would seem to have been confirmed by botanists and wildlife enthusiasts on subsequent visits. In view of the fact that this is the only locality in the Republic of South Africa from which *C. tagal* had been recorded, it was felt that a survey of the current status of this species was essential. This survey was also intended as part of a re-appraisal survey of the mangroves of Natal presently being conducted by Ward.

Consequently two visits were paid to the Kosi Bay lakes, viz. 8–10 October, 1972, and 7–9 December, 1972. The earlier visit was purely a reconnaissance to establish the presence of this species and the approximate numbers and localities. During the second visit distribution and numbers were recorded and measurements made wherever possible.

Distribution

The distribution of *C. tagal* in the estuary is shown on the accompanying map (Fig. 1).

As fairly careful observation on the reconnaissance established that this species is absent in the higher reaches of the system, these parts were not included in the survey. The greatest number occurred at A where at least 300 saplings were counted in an area of approximately 0,25ha; in the area of highest

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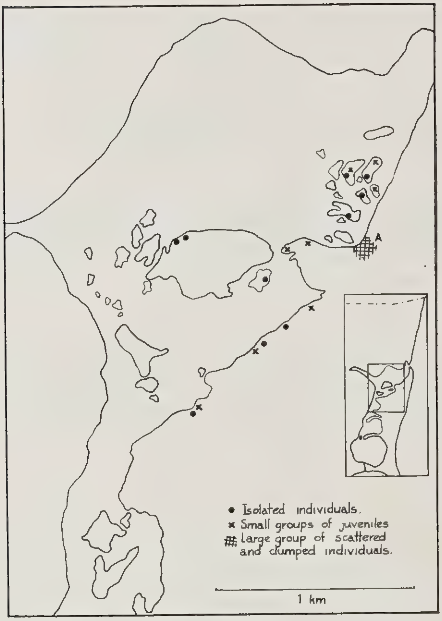
A
● Isolated individuals.
× Small groups of juveniles
# Large group of scattered and clumped individuals.
1 km

FIG. 1.
Part of Kosi Estuary showing the distribution of live *Ceriops tagal.*

concentration a count revealed that there was an average of 65 saplings in an area of 100m^2. In one spot 37 saplings were counted around two adjacent dead parent trees. These 37 saplings were not included in the above count which would otherwise have been higher.

While there were small local groupings of saplings at other parts of the estuary, nowhere else were they found to be as numerous. In most cases where there was a small colony of saplings there was evidence of the presence of dead mature trees in the immediate vicinity, suggesting that these were the parents of the saplings. The survey also revealed that all the living specimens were saplings up to a height of 1,25m; no mature living trees were seen. The saplings averaged approximately 100 cm in height which indicates that they are all roughly the same age. It is suggested that they became established from propagules released either shortly before, or by dying trees during, the mass mortality of mangroves which occurred in 1965 (Breen and Hill, 1969). There was no evidence of flowering or fruiting in the present community.

CONCLUSIONS

The presence of so many dead parent trees of *C. tagal* indicates that this species was fairly common prior to the mass mortality in 1965. This survey has revealed that, although there appear to be no living mature trees, regeneration of this species in the form of young saplings is good and the prospects for the continued existence of a fairly extensive community at Kosi Bay are encouraging. A disquieting feature is the lack of plants at a reproductive stage. Of interest here are the observations on *Bruguiera gymnorrhiza* (L.) Lam. where plants at heights of 70 cm and 90 cm were found in bud and young fruit respectively. Should the present juvenile *C. tagal* community suffer a recurrence of the 1965 tragedy there will be little prospect of regeneration other than through propagative material floating in from further north. As *C. tagal* has not been found at any other locality in the Republic, it is essential that this southernmost community at Kosi Bay should enjoy the fullest possible protection.

ACKNOWLEDGEMENTS

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